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**Methods:** Two groups of Wistar rats were examined: rats subjected to common bile duct ligation (CBDL) and rats subjected to a sham operation. Bacterial clearance, organ distribution and phagocytic function of Kupffer cells were examined.

**Results:** In this study, clearance of *Escherichia coli* from the peripheral blood in CBDL rats was decreased significantly compared with that in sham-operated rats. A significant decrease in *E. coli* trapped in the liver was observed in CBDL rats compared with sham-operated rats. Phagocytic activity and superoxide production of Kupffer cells isolated from CBDL rats were significantly lower than in sham-operated rats.

**Conclusion:** The results suggest that susceptibility to infection in obstructive jaundice is due to impaired phagocytic function of Kupffer cells.

**PP-078 Genetic characteristics and pathogenicity of hepatitis E virus isolated from patients in eastern China, genotype 4 HEV can result in acute liver failure**

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**Background and Aims:** Hepatitis E is the most important cause of acute viral hepatitis in adults throughout Asia, the Middle East and Africa where the sanitation conditions are usually substandard. The aim of this study was to investigate the genetic characterization of hepatitis E virus (HEV) and its correlation with pathogenicity in patients with or without chronic liver disease and also the phylogenetic relationship between human and swine HEV to assess potential risky factor for sporadic hepatitis E.

**Methods:** 62 serum samples of patients with acute hepatitis E were collected, including 23 cases coinfecting with hepatitis B virus (HBV). The clinical information (age, sex, complication, mortality, markers of liver function) of patients with liver failure were recorded. Anti-HEV detection and partial HEV RNA amplification were performed by enzyme immunoassays (EIA) and reverse transcription-nested polymerase chain reaction (RT-nPCR) method respectively, PCR products were sequenced. The isolated human HEV sequences were analyzed phylogenetically.

**Results:** 10 of 62 cases suffered from liver failure. The positive rate of HEV RNA in serum were 21.0% (13/62), including 4 patients with liver failure. All 13 isolates shared 82.1%-98.0% nucleotide homology with each other and had identities of 74.7%-81.0%, 75.3%-78.6%, 75.3%-80.0% and 82.1%-96.1% with the corresponding regions of genotypes 1-4 HEV respectively. One human HEV strain (GS-NJ-12) shared 100% nucleotide identity with the swine HEV strain named swIM6-43.

**Conclusions:** This study provides further evidence supporting the possibility of zoonotic transmission of HEV from swine to human, genotype 4 HEV can result in acute liver failure and acute-on-chronic failure.

**PP-079 Abnormal expression of IGF-II in HBV-related liver diseases and influences of activation intervention on proliferation of HepG2 cells**

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**Background:** The abnormality of IGF-II expressions involved in the formation and development of HCC. However, their molecular mechanism and expression rule remains

not too clear. In the present study, we investigated the levels of IGF-II expression in cancerous, paracancerous, noncancerous tissues, and circulating blood in HCC patients, and the clinicopathological features of IGF-II abnormality, and analyze the effect of specific siRNA-mediated inhibition of IGF-II on apoptosis of human HepG2 cells.

**Methods:** The levels of circulating IGF-II in patients with liver diseases and 30 healthy individuals were detected by ELISA. IGF-II siRNA was used to down-regulate IGF-II expression in human HepG2 cells; RT-PCR and ELISA were used to examine IGF-II expression; Annexin V-FLUOS/PI was used to test cell apoptosis.

**Results:** The expression of IGF-II in peripheral blood of HCC patients was significantly more than patients with non-liver tumors, acute or chronic hepatitis, liver cirrhosis, and normal subjects ( $P=0.000$ ). The overexpression of IGF-II in the cancerous group was associated with HBV infection. At 72 h after IGF-II siRNA transfection, IGF-II expression in the 150 nM group in the HepG2 cells reduced 63% at mRNA and 44.5% at protein levels. The down-regulation of IGF-II expression was depended on the dose of IGF-II siRNA and the action time after specific siRNA transfection. Interestingly, the apoptosis index of the HepG2 cells increased with IGF-II inhibition, and the down-regulation of IGF-II sensitized HepG2 cells to adriamycin.

**Conclusion:** The abnormal activation of hepatic IGF-II is closely associated with the occurrence and development of HCC, and IGF-II inhibition mediated by specific siRNA promotes HepG2 cells apoptosis. Therefore IGF-II is a potential target for HCC gene therapy.

**PP-080 Investigation on MMP-9 concentration in sera of people infected by *Helicobacter pylori***

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**Objectives:** *Helicobacter Pylori* (HP), as a gram negative bacterium colonizing in the gastric mucosa, induces gastroduodenal complications varying from mild gastritis to gastric malignancies. mmp-9, an enzyme with protease activity, plays key role in cancer induction and metathesis. Regarding to high incidence of gastric cancer in Ardabil province, the present study was conducted with the following major question whether the increase of serum level of mmp-9 can be seen before induction of cancer by H.P.

**Methods:** Serum and stool specimens together were obtained from 200 apparently healthy individuals. Samples were stored at  $-70^{\circ}\text{C}$  until ELISA experiments. ELISA kits were used to assess H. Pylori Ag in stools and serum concentration of mmp-9.

**Results:** Obtained results showed increase of serum level of mmp-9 in H.P infected person in comparison to healthy ones.

**Discussion:** Albeit our results show increase in serum level of mmp-9 in infected persons but this is not significant. Previous studies showed significant increase in mmp-9 concentration in biopsy samples prepared from H.P. infected persons. This controversy may arise from differences in studied population, variety of H.P., the manner of sampling and detection of H.P. infection. We suggest making a similar investigation with special regards to these factors.